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UNITED STATES GOVERNMENT
MEMORANDUM

DATE: May 23, 1994
FROM: Pamela Gerr
Domestic Facilities Division, CCB
SUBJECT: Ex parte communication in CC Docket No. 93-2
TO: William F. Caton
Office of the Managing Director

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The attached documents from the Telecommunications Industry Association (TIA) were recently identified as containing ex parte communications relevant to CC Docket No. 93-2. Please include these documents in the public record for this docket number, as required by Section 1.1206(a)(4) of the Commission's rules.

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SUGGESTED RULE CHANGES FOR MERGING

PART 21 AND PART 94 INTO PART 101

**Telecommunications Industry Association
Fixed Point-to-Point Communication Section
Network Equipment Division**

April 6, 1994

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TELECOMMUNICATIONS INDUSTRY ASSOCIATION
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CC93-2

WHY ARE WE HERE?

- ▶ **TIA IS THE MAJOR INDUSTRY ASSOCIATION REPRESENTING MICROWAVE MANUFACTURERS.**
- ▶ **TIA SUPPORTS FCC'S PLAN TO MERGE PART 21 AND PART 94 INTO PART 101.**
- ▶ **TIA WORKING GROUP TR14.11 HAS COMPLETED BULLETIN 10-F "INTERFERENCE CRITERIA FOR MICROWAVE SYSTEMS," WHICH IS INDUSTRY STANDARD FOR GENERAL FIXED MICROWAVE INTERFERENCE MATTERS, INCLUDING PCS-MICROWAVE INTERFERENCE CRITERIA.**
- ▶ **TIA'S PROPOSALS RESULT FROM SEVERAL MONTHS EFFORT BY WORKING GROUP CONSISTING OF MANUFACTURER, USER, AND FREQUENCY COORDINATOR REPRESENTATIVES FROM ALCATEL, HARRIS-FARINON, BELLCORE, US WEST, EMI, UNION PACIFIC AND COMSEARCH.**

WHAT IS TIA PROPOSING?

- ▶ **REVIEWED PART 21 AND PART 94, INCLUDING NEW RULES FROM DOCKET 92-9.**
- ▶ **IDENTIFIED RULES APPLICABLE TO MICROWAVE USERS, DETERMINED IF PART 21 OR PART 94 RULE PREFERABLE, CONSOLIDATED AND MODIFIED RULES WHERE NECESSARY.**
- ▶ **PROPOSING ACTUAL TEXT OF EACH PART 101 RULE WITH SUPPORTING REASONS.**
- ▶ **PROPOSED RULES INCORPORATE METRIC VALUES FOR DISTANCES STATED.**
- ▶ **THIS "MERGER" WILL BE AN ONGOING PROCESS -- TIA EAGER TO CONTINUE ASSISTING FCC.**

OVERVIEW OF RULES PROPOSED

- ▶ **DEFINITION FOR ATPC**
- ▶ **FREQUENCY COORDINATION**
- ▶ **INTERFERENCE PROTECTION**
- ▶ **TRANSMITTER POWER**
- ▶ **MODULATION (DIGITAL AND ANALOG)**
- ▶ **FREQUENCIES**
- ▶ **MODIFICATIONS (MAJOR AND MINOR)**
- ▶ **FREQUENCY TOLERANCE**

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- ▶ **PATH LENGTH REQUIREMENTS**
 - ▶ **ANTENNAS**
 - ▶ **EMISSION AND BANDWIDTH LIMITATIONS**
 - ▶ **TIME FOR CONSTRUCTION**
 - ▶ **WAIVER REQUESTS**
 - ▶ **TRANSITION PERIOD**
 - ▶ **TEMPORARY AUTHORIZATIONS AND OPERATIONS**

DEFINITION FOR ATPC

- ▶ **IN DKT. 92-9, FCC VALIDATES USE OF ATPC BY PERMITTING UP TO 3dB INCREASE IN EIRP.**
- ▶ **FCC LEFT OPEN WHETHER GREATER INCREASE IN EIRP USING ATPC IS ACCEPTABLE.**
- ▶ **TO MINIMIZE INTER-SYSTEM INTERFERENCE, TIA, IN BULLETIN 10-F, ADOPTS INDUSTRY STANDARDS FOR HOW TO USE AND MANAGE ATPC, HOW OFTEN IT CAN BE USED AND HOW IT IS CALCULATED.**
- ▶ **TIA PROPOSES THAT BULLETIN 10-F GUIDELINES FOR USE OF ATPC BE INCORPORATED INTO PART 101 RULES.**

FREQUENCY COORDINATION

- ▶ **CONSISTENT WITH DKT. 92-9, ADOPT SECTION 21.100 PRIOR COORDINATION PROCEDURES, WITH CERTAIN CHANGES CONFORMING TO CURRENT INDUSTRY PRACTICES:**
 - ◆ **EXPAND CLASS ENTITLED TO PRIOR COORDINATION NOTICE.**
 - ◆ **"MAJOR" AND "MINOR" MODIFICATIONS TRIGGER PRIOR COORDINATION NOTICE.**
 - ◆ **FUTURE GROWTH OF SYSTEMS MUST BE PRIOR COORDINATED.**
 - ◆ **REFINE INFORMATION IN PRIOR COORDINATION NOTICE.**
 - ◆ **RESPONSE TO PRIOR COORDINATION NOTICE BASED UPON INTERFERENCE MUST SPECIFY PROBLEM IN WRITING.**
 - ◆ **PERMIT EXPEDITED PRIOR COORDINATION NOTICE.**
 - ◆ **GROWTH CHANNELS PROTECTED.**

INTERFERENCE PROTECTION

- ▶ **BULLETIN 10-F ESTABLISHES INDUSTRY STANDARDS FOR PROTECTING MICROWAVE USERS FROM INTERFERENCE, INCLUDING FROM PCS.**
- ▶ **CONSISTENT WITH DKT. 92-9, CRITERIA IN BULLETIN 10-F WILL GOVERN INTERFERENCE PROTECTION. BULLETIN 10-F WILL BE INCORPORATED INTO FCC RULES.**

TRANSMITTER POWER

- ▶ **GENERALLY USES SECTION 94.73 BECAUSE IT IS MORE COMPREHENSIVE THAN SECTION 21.107.**
- ▶ **INCORPORATES PROVISIONS IN SECTION 21.107 REGARDING HARMFUL INTERFERENCE PROTECTION.**
- ▶ **TO ELIMINATE INCONSISTENCIES, +55 dBw EIRP FOR BANDS ABOVE 4 GHz.**
- ▶ **TO ACCOMMODATE CROSS-POLARIZATION, VALUES FOR MAXIMUM ALLOWABLE TRANSMITTER POWER AND EIRP SHOWN ARE PER POLARIZATION.**
- ▶ **ATPC PERMITTED.**

MODULATION

- ▶ **SEPARATE PROVISIONS FOR DIGITAL AND ANALOG.**
- ▶ **MERGES SECTIONS 21.722 AND 94.94.**
- ▶ **DIGITAL SYSTEM PAYLOAD CAPACITIES EXPRESSED IN DS-1s, DS-3s, OR STS-1s, CONFORMING TO COMMERCIALLY AVAILABLE EQUIPMENT. PAYLOAD CAPACITY REQUIRED BY FCC MUST CORRESPOND TO COMMERCIALLY AVAILABLE EQUIPMENT.**
- ▶ **TO ACCOMMODATE CROSS-POLARIZATION, VALUES FOR MINIMUM PAYLOAD DIGITAL CAPACITY ARE PER POLARIZATION.**
- ▶ **ALL EQUIPMENT OPERATING BELOW 24 GHz MUST MEET SPECIFIED BIT RATES.**
- ▶ **SPECIFIC RULES FOR FULL MOTION DIGITAL VIDEO.**
- ▶ **MINIMUM NUMBER OF ANALOG CHANNELS SPECIFIED.**

FREQUENCIES

- ▶ **MERGES SECTIONS 21.701 AND 94.65.**
- ▶ **CORRECTS MINOR ERRORS FOR 10 GHz BAND.**
- ▶ **FOOTNOTE FOR 11 GHz BAND PERMITS RADIOS AUTHORIZED FOR 30 MHz BANDWIDTH TO BE USED FOR 40 MHz CHANNELS IN CONGESTED AREAS.**
- ▶ **ENCOURAGES USE OF SPECIFIED TRANSMIT/RECEIVE CHANNEL PAIRINGS.**

MODIFICATIONS

- ▶ **USES PART 21 INSTEAD OF PART 94 GUIDELINES BECAUSE THEY PROVIDE OPERATORS MINIMUM FLEXIBILITY, WHICH IS REQUIRED FOR MICROWAVE SYSTEMS TO UTILIZE SPECTRUM EFFICIENTLY.**
- ▶ **RETAINS MAJOR AND MINOR CATEGORIES.**
- ▶ **MORE THAN 5 SECOND CHANGE IN TRANSMITTING ANTENNA COORDINATES OR MORE THAN 10 FOOT CHANGE IN ANTENNA HEIGHT IS MAJOR CHANGE.**
- ▶ **MINOR CHANGE IF NECESSARY BANDWIDTH IS NOT INCREASED BEYOND THE PREVIOUSLY AUTHORIZED BANDWIDTH INSTEAD OF BY MORE THAN 10% OF THE PREVIOUSLY AUTHORIZED NECESSARY BANDWIDTH. THIS ENSURES THAT ANY OPERATION BEYOND PREVIOUSLY AUTHORIZED BANDWIDTH WOULD BE SUBJECT TO PRIOR FREQUENCY COORDINATION AS A "MAJOR" CHANGE.**

FREQUENCY TOLERANCE

- ▶ **FREQUENCY TOLERANCES FOR 4 GHz, LOWER 6 GHz, 10 GHz BANDS INCLUDED.**
- ▶ **OTHER MINOR CHANGES CONFORMING TO DKT. 92-9 RULES.**

PATH LENGTH

- ▶ **FORMULA FOR DETERMINING ALLOWABLE EIRP FOR SHORT PATHS REVISED TO ACCOMMODATE WIDEBAND RADIOS BY PROVIDING SMOOTHER TRANSITION.**

ANTENNAS

- ▶ **ADOPT SECTION 21.108 TO GOVERN ANTENNA OPERATION, WITH CERTAIN MODIFICATIONS:**
 - ◆ **NEW CATEGORY B STANDARDS FOR UPPER 6 GHz BAND CHANGED TO BE SAME AS FOR LOWER 6 GHz BAND. THIS CHANGE CONFORMS TO CATEGORY A STANDARDS, WHICH ARE SAME FOR UPPER AND LOWER 6 GHz BANDS.**
 - ◆ **RESTRICTS USE OF CATEGORY B ANTENNAS IN "CONGESTED" AREAS.**
 - ◆ **PERMITS CROSS-POLARIZATION.**

EMISSION AND BANDWIDTH LIMITATIONS

- ▶ **ADOPT PART 21 RULES BECAUSE THEY ARE MORE
CONSISTENT WITH CURRENT INDUSTRY USAGE.**

TIME FOR CONSTRUCTION

- ▶ **ADOPT 18 MONTH CONSTRUCTION PERIOD PROVIDED UNDER PART 21. DUE TO ADVERSE WEATHER AND OTHER FACTORS OUTSIDE THEIR CONTROL, LICENSEES NEED MAXIMUM TIME.**
- ▶ **CONSTRUCTION CAN COMMENCE UPON EXPIRATION OF PUBLIC NOTICE PERIOD INSTEAD OF UPON LICENSE GRANT.**

WAIVER REQUESTS

- ▶ **ADOPT PART 21 WAIVER REQUIREMENTS.**

TRANSITION PERIOD

- ▶ **GRANDFATHERS ALL SYSTEMS LICENSED OR SUBJECT TO PENDING APPLICATION ON PART 101 EFFECTIVE DATE SO THEY CAN CONTINUE UNDER PART 21 OR PART 94.**
- ▶ **GRANDFATHERED INDEFINITELY, EXCEPT LICENSEE OPERATING UNDER PART 21 OR PART 94 MUST ELIMINATE ANY INTERFERENCE TO PART 101 USER.**

SPECIAL TEMPORARY AUTHORIZATIONS AND OPERATION

- ▶ **FOR STA, ADOPT SECTION 94.43.**
- ▶ **FOR TEMPORARY AUTHORIZATIONS, ADOPT PART 21 PROVISIONS BECAUSE THEY ARE MORE SPECIFIC.**
- ▶ **EVEN THOUGH PROCESSING EXPEDITED, PERMIT BSTA TO PROVIDE OPERATORS NEEDED FLEXIBILITY TO CONSTRUCT AND OPERATE WHILE APPLICATION PENDING.**